

ABSTRACT OF THE DISCLOSURE
FLUX LEAKAGE BARRIER IN FLUID BEARING FOR DISK DRIVE

5 A spindle design for a hard disk drive assembly constructed in accordance
with the present invention includes a significantly large gap between the rotating,
ferromagnetic hub with its permanent magnet rotor and the rotating sleeve of the fluid
bearing journal member. The large gap may be filled with a medium, such as air, or a
non-permeable material. The large gap is preferably on the order of several hundred
10 microns. Because of the large gap, the magnetic flux leakage from the rotating hub
members and sleeve into the stationary shaft at the center of the spindle is negligible.
Consequently, iron loss in the shaft caused by magnetic flux leakage into the shaft is
reduced to acceptable noise levels.

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